

IN THE CLAIMS

Please cancel claims 1-3 and 5-6 without prejudice to, or disclaimer of, the subject matter recited therein.

Please amend the following claim:

B1
4. (Twice Amended) The method according to any one of claims 9 or 10, wherein said plurality of parallel band cords traverse the cylindrical drum along the axis of the drum, and the traversing speed is continuously changed, while rotating the drum at a constant speed, whereby the average density is gradually increased.

Please add the following claims:

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7. A method of making a pneumatic tire,
said pneumatic tire comprising
a tread portion,
a pair of sidewall portions,
a pair of bead portions,
a carcass extending between the bead portions, and
a belt disposed radially outside the carcass in the tread portion, said belt composed of a breaker and a band disposed on the radially outside of the breaker,

said method comprising

β^2 applying a raw breaker material to the cylindrical drum, and spirally winding a plurality of parallel band cords around the raw breaker material on the cylindrical drum so that angles of the windings are not more than 5 degrees with respect to the tire equator, and

the improvement comprising

increasing an average tension of the band cords in the tire axial direction, during winding the band cords, from the tire equator towards each axial edge of the band to satisfy the following relationships

$$T_n = T_c \times (R_c/R_n)$$

and

$$T_c \times (R_c/R_e) < T_e \leq 3.0 \times T_c \times (R_c/R_e)$$

wherein

T_n is the average tension at any position P_n at a certain distance from the tire equator,

T_c and T_e are the average tensions at the tire equator and the band edges, respectively,

R_n is the radius of the inner surface of the band in the finished tire at the positions P_n , and

R_c and R_e are the radii of the inner surface of the band at the

tire equator and the band edges, respectively.

B² 8. A method according to claim 7, wherein the average tensions T_c and T_e and the radii R_c and R_e satisfy the following relationship:

$$1.5 \times T_c \times (R_c/R_e) < T_e \leq 3.0 \times T_c \times (R_c/R_e).$$

9. A method of making a pneumatic tire, said pneumatic tire comprising a tread portion, a pair of sidewall portions, a pair of bead portions, a carcass extending between the bead portions, and a belt disposed radially outside the carcass in the tread portion, said belt composed of a breaker and a band disposed on the radially outside of the breaker, said method comprising applying a raw breaker material to a cylindrical drum, spirally winding a plurality of parallel band cords around the raw breaker material on the cylindrical drum so that angles of the windings are not more than 5 degrees with respect to the tire equator, and

B2 the improvement comprising
increasing an average density of the band cords in the tire axial direction during winding the band cords from the tire equator towards each axial edge of the band to satisfy the following relationships

$$D_n = D_c \times (R_c/R_n)$$

and

$$D_c \times (R_c/R_e) < D_e \leq 3.0 \times D_c \times (R_c/R_e)$$

wherein

D_n is the average density at any position P_n at a certain distance from the tire equator,

D_c and D_e are the average densities at the tire equator and the band edges, respectively,

R_n is the radius of the inner surface of the band in the finished tire at the positions P_n , and

R_c and R_e are the radii of the inner surface of the band at the tire equator and the band edges, respectively.

10. A method according to claim 9, wherein
the average densities D_c' and D_e' and the radii R_c and R_e satisfy the following relationship:

$$1.5 \times D_c \times (R_c/R_e) < D_e \leq 3.0 \times D_c \times (R_c/R_e).$$

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11. A method of making a pneumatic tire,
said pneumatic tire comprising
a tread portion,
a pair of sidewall portions,
a pair of bead portions,
a carcass extending between the bead portions, and
a belt disposed radially outside the carcass in the tread
portion, said belt composed of a breaker and a band disposed on the
radially outside of the breaker,
said method comprising
applying a raw breaker material to a cylindrical drum,
spirally winding a plurality of parallel band cords around the
raw breaker material on the cylindrical drum so that angles of the
windings are not more than 5 degrees with respect to the tire
equator, and
gradually increasing (1) an average density of the band cords
in the tire axial direction and (2) an average tension of the band
cords in the tire axial direction from a center portion of the band
towards each axial edge of the band during winding the band cords.

12. A method of making a pneumatic tire,

said pneumatic tire comprising

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a tread portion,

a pair of sidewall portions,

a pair of bead portions,

a carcass extending between the bead portions, and

a belt disposed radially outside the carcass in the tread portion, said belt composed of a breaker and a band disposed on the radially outside of the breaker,

said method comprising

applying a raw breaker material to a cylindrical drum, and

spirally winding a plurality of parallel band cords around the raw breaker material on the cylindrical drum so that angles of the windings are not more than 5 degrees with respect to the tire equator,

increasing an average tension of the band cords in the tire axial direction during winding the band cords from the tire equator towards each axial edge of the band while satisfying the following condition

$$T_n = K_t \times T_c \times (R_c/R_n)$$

wherein

T_n is the average tension during winding the band cords at any position P_n at a certain distance from the tire equator,

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Tc is the average tension during winding the band cords at a position Pc at the tire equator,

Rn is the radius of the inner surface of the band in the finished tire at the position Pn,

Rc is the radius of the inner surface of the band in the finished tire at the position Pc, and

Kt is a constant more than 1 but not more than 3, and

increasing an average density of the band cords in the tire axial direction during winding the band cords from the tire equator towards each axial edge of the band to satisfy the following relationships while satisfying the following condition

$$D_n = K_d \times D_c \times (R_c/R_n)$$

wherein

Dn is the average density during winding the band cords at any position Pn at a certain distance from the tire equator,

Dc is the average density during winding the band cords at a position Pc at the tire equator, and

Kd is a constant more than 1 but not more than 3.

13. A method according to claim 12, wherein

said constant Kt is more than 2 but not more than 3, and

said constant Kd is more than 2 but not more than 3.

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Attached hereto is a marked up version showing the changes made to the application by this Reply.